

REMARKS/ARGUMENTS

In the Office Action, the Examiner objected to claims 48 and 26. The dependencies of both these claims has been corrected and it is believed that the objections can now be withdrawn.

In the Office Action, the Examiner rejected all of the claims based on the patent to Mikkelsen (6,600,560) either alone or in combination with one or more of Piwonka-Corle (5,910,842), Carlson (4,771,629) and Sei (WO 01/06173).

Mikkelsen was cited for its teaching of a first broadband light source, the light from which is directed through a second broadband light source. Optical systems are used to focus the light through an aperture stop. The Examiner states that although Mikkelsen is silent regarding "focusing and focusing positions," Mikkelsen does disclose that the sources are "sharply imaged in the plane of the aperture stop." From this statement, the Examiner argues that the focusing limitations in the claims would have been obvious. Even if this were true, (which applicants dispute) it is noted that the Examiner has not addressed certain other limitations that appear in at least some of the claims. For example, the Examiner appears to have not considered the limitation in claim 28 which requires imaging the aperture stop on the sample.

Rather than argue the issue with the Examiner at this time, applicants have submitted the declaration of Ward R. Dixon which establishes that an illumination system corresponding to the subject invention was reduced to practice before the May 2, 2001 filing date of the Mikkelsen patent. Mr. Dixon is a Mechanical Engineering manager at Therma-Wave who worked under the direction of the co-inventors named herein, Jianhui Chen and David Aikens. Mr. Dixon was responsible for preparing the first drawings; building the first prototypes and testing the first prototypes of the subject design. Mr. Dixon therefore has the most direct knowledge of the pertinent facts related to the reduction to practice of the invention. It should also be noted that both of the two named co-inventors are no longer employed by the assignee so that in addition to being less familiar with the facts regarding reduction to practice they are also not readily available to make this declaration. (MPEP 715.04) For these reasons, it is submitted that the sworn declaration of Mr. Dixon, which is based on his first hand knowledge, should be sufficient to remove Mikkelsen as a reference.

The patents to Piwonka-Corle (5,910,842), Carlson (4,771,629) and Sei (WO 01/06173) were cited as being applicable to the various features in the dependent claims. None of these references, whether taken alone or in combination teach or suggest the invention claimed herein.

Accordingly, based on the above, it is respectfully submitted that the claim in the application define patentable subject matter and allowance thereof is respectfully solicited.

Respectfully submitted,

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